framed buildings, the characteristic humid conditions in this country are very favourable to the establishment of decay in timber used for other purposes.

The new edition of Cartwright and Findlay is an up-to-date source of reference covering practical measures to be adopted to minimise deterioration due to decay fungi, and more technical descriptive matters. It has been revised to take account of new techniques for examination of infected wood, improved practices for minimising decay, and additional descriptive and diagnostic work on fungi affecting standing trees, logs and timber in storage, and timber in service. Of particular interest are those sections dealing with microfungi causing the so-called "soft rots" which have been studied intensively, especially at the Princes Risborough Laboratory, during recent years. These fungi tolerate high-moisture-content conditions and preservative retentions which inhibit growth of the usual decay fungi. Their importance was recognised first of all through premature failure of cooling-tower timbers. Protective measures applicable to board products deservedly receive some attention; misplaced confidence in combinations of durable synthetic resins and non-durable wood is all too common.

Finally it may be said that it is only scientists of the calibre of the two authors who could achieve the desirable combination of easy readability and well-balanced presentation of highly technical subject matter which this book provides. It should become widely used in New Zealand.

—J.S.R.


The author, who is statistician for the British Forestry Commission, has written one of the very few books of this kind. It is more suitable for foresters studying statistics for the first time than for those who are more experienced in their use, but, both tiro and specialist will profit from looking into it.

The first chapter briefly describes and illustrates the common designs used to lay out plots in field trials. The methods used to analyse these designs are then dealt with at length. The rest of the book covers more ground than the title suggests. Methods of sampling, regression, covariance and tests of significance, ancillary to the main topic, are treated fully. The author has tried to help readers who have little mathematical background, or who lack calculating facilities, by the inclusion of some simpler, statistically correct, methods and many worked examples. As in any applied science, the technical validity of many concepts must be taken on trust, and this has been helped by
the emphasis which is placed upon their motivation. The assumptions
to be made in applying the statistical methods are clearly stated. In
practice, however, it is often laborious to test whether the data satisfied
these assumptions sufficiently; so one must rely upon experience.

The reader who wishes to understand the subject more completely
may be bewildered rather than helped by the numerous references to
other techniques given in standard books. The book is not very
satisfactory as a reference work because it has no index, and the
main procedures are not formally laid out. These are partly com­
penated for by good section heads and a glossary of statistical terms
and their German and French equivalents. It can be recommended to
any experimenter in forest science who concerns himself with the
statistical side of his work.

—H.S.F.

DIRECT SEEDING IN THE SOUTH, 1959, A SYMPOSIUM.
Duke U.S.A., University School of Forestry, Durham, North

New Zealand foresters with only a slight acquaintance of American
forestry will have been aware of the tremendous afforestation boom
with southern pines that has arisen in the south-east of the United
States in the past few years. This book is a record of a meeting held at
Duke University in 1959 to consider the part that can be played by
direct seeding and the factors and technique involved. There are
contributions, mostly factual, from 29 participants on all facets of the
problem; they include information on seed, protectants, site prepara­
tion, seeding season, aerial techniques, desired stocking, and evalua­
tion of results.

It is not clear what proportion of afforestation acreage is now
accounted for by direct seeding — it is obviously increasing, certainly in
Louisiana, where according to one participant, nurseries will be down
to 5% of their present capacity in five years. The big “break
through” is said to have occurred in 1954, when effective bird
repellents and insecticides were evolved. Success varies according to
species. Direct-seeding of longleaf pine (*P. palustris*) has a great
advantage over planting, with loblolly the chances of success are
about equal, but with slash pine the hazards of spring and summer
droughts give planting an advantage.

But the value of the book in this country does not lie so much
in its results as in its assembly and treatment of the multitude of factors
involved in the operation. Anyone interested in direct seeding in New
Zealand is advised to consult this work; he will probably find that
he is confronting a problem wider than he supposed.

—H.V.H.